

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of claims in the application.

1. (Original): A security paper comprising at least two plies of paper, in which, at least in one area, at least one interlayer placed between the two plies of paper includes at least one element giving the paper a high double-fold resistance, as defined in the standard NF ISO 5626, said element being in “diffuse” form and/or in the form of particles, and the two plies and said interlayer being intimately joined together.

2. (Currently amended): The security paper as claimed in claim 1, ~~characterized in that~~ wherein said layer is placed by throwing a composition containing said element.

3. (Currently amended): The security paper as claimed in ~~either of the preceding claims characterized in that~~ claim 1, wherein the surface between the two plies is entirely covered by said layer.

4. (Currently amended): The security paper as claimed in ~~one of the preceding claims, characterized in that~~ claim 1, wherein the weight of each ply is between 30 and 60 g/m².

5. (Currently amended): The security paper as claimed in ~~one of the preceding claims, characterized in that~~ claim 1, wherein the double-fold resistance of the paper is greater than a value DF_{min}, where:

$$DF_{\min} = 75\,000E,$$

where E is the percentage dry weight of the element in the paper.

6. (Currently amended): The security paper as claimed in ~~one of the preceding claims, characterized in that~~ claim 1, wherein said element is chosen from mineral pigments, especially clays or titanium dioxide, organic pigments, natural or synthetic binders, especially starches or polyvinyl alcohols, polyurethanes or styrene/butadiene copolymers, or natural or synthetic fibers, especially polyester or polyamide fibers, and mixtures thereof.

7. (Currently amended): The security paper as claimed in ~~one of the preceding claims,~~
~~characterized in that~~ claim 1, wherein at least one of the plies of paper includes a watermark.

8. (Currently amended): The security paper as claimed in ~~one of the preceding claims,~~
~~characterized in that~~ claim 1, wherein the interlayer also includes at least one authentication
element.

9. (Currently amended): The security paper as claimed in ~~the preceding~~ claim 8,
~~characterized in that~~ wherein the authentication element can be detected optically.

10. (Currently amended): The security paper as claimed in ~~the preceding~~ claim 9,
~~characterized in that~~ wherein the authentication element is chosen from iridescent particles,
fluorescent particles, phosphorescent particles, colored particles, and flakes.

11. (Currently amended): The security paper as claimed in ~~one of claims 8 to 10,~~
~~characterized in that~~ claim 8, wherein the authentication element reacts to certain stimulations
giving a specific signal that can be detected using a suitable device.

12. (Currently amended): The security paper as claimed in ~~the preceding~~ claim 11,
~~characterized in that~~ wherein the authentication element is chosen from substances that react to
electromagnetic fields, in particular of the microwave or infrared or ultraviolet type.

13. (Currently amended): The security paper as claimed in ~~one of the preceding claims 8~~
~~to 12, characterized in that~~ claim 8, wherein the element providing the double-fold resistance is
also an authentication element.

14. (Currently amended): A process for manufacturing a security paper having a high
double-fold resistance as defined in the standard NF ISO 5626, as claimed in ~~one of the preceding~~
~~claims~~ claim 1, which comprises the following steps:

- a first pulp composition is deposited on a first dewatering wire;
- the first pulp composition is drained so as to form a first fibrous mat;
- a second pulp composition is deposited on a second dewatering wire;
- the second pulp composition is drained so as to form a second fibrous mat;
- a liquid composition, containing a soluble element, or an element in emulsion or in the form of particles, giving said high double-fold resistance, is thrown onto at least one of said fibrous mats; and
- said first fibrous mat is joined to said second fibrous mat in order to form a unitary fibrous mat.

15. (Currently amended): The process as claimed in ~~the preceding claim 14, characterized in that~~ wherein said composition is thrown by spraying.

16. (Currently amended): The process as claimed in ~~either of claims 14 and 15, characterized in that~~ claim 14, wherein at least one watermark is formed in the first and/or the second fibrous mat.

17. (Currently amended): The process as claimed in ~~one of claims 14 to 16, characterized in that~~ claim 14, wherein a liquid composition containing at least one authentication element is thrown onto said first and/or said second fibrous mat.

18. (Currently amended): The process as claimed in ~~one of claims 14 to 17, characterized in that~~ claim 14, wherein the first pulp composition or the second pulp composition is drained by means of a Fourdrinier wire, a double wire or a cylinder mold.

19. (Currently amended): The process as claimed in ~~one of claims 14 to 18, characterized in that~~ claim 14, wherein it includes additional steps of pressing and drying the unitary fibrous mat.